

Notice of Allowability

Application No.

10/027,333

Examiner

Phillip A Johnston

Applicant(s)

KERNAN ET AL.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment dated 10-23-2003.
2. ☒ The allowed claim(s) is/are 1,3,5,7-10,12-16,18 and 19.
3. ☒ The drawings filed on 15 March 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1 ☐ Notice of References Cited (PTO-892)
- 2 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3 ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____
- 4 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

- 5 ☐ Notice of Informal Patent Application (PTO-152)
- 6 ☒ Interview Summary (PTO-413), Paper No. 20031208.
- 7 ☒ Examiner's Amendment/Comment
- 8 ☒ Examiner's Statement of Reasons for Allowance
- 9 ☐ Other

Detailed Action

Examiners Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney, Wilfred F. Desrosiers of Blodgett and Blodgett on 12-05-2003. The changes made below are underlined.

The Claims are amended as follows:

- 1. (Currently Amended) A device for manipulating ions, said device comprising:
- (a) a holder of electrically conductive material having an aperture, said aperture having a central longitudinal axis;
 - (b) a first electrode extending parallel to said longitudinal axis, said first electrode having a first end fixed and integral with said holder and a second end spaced from said first end holder;
 - (c) a second electrode extending parallel to said longitudinal axis and spaced from said first electrode and said holder, said second electrode having a first end adjacent the second end of said first electrode, said

second electrode having a second end adjacent the first end of said first electrode; and

(d) a rigid support of electrically insulated material having a first end fixed to said holder, said rigid support having a second end fixed to the second end of said second electrode. --

-- 3. (Currently Amended) A device for manipulating ions, said device having a longitudinal axis and comprising:

(a) a first holder of electrically conductive material;

(b) a second holder of electrically conductive material spaced from said first holder;

(c) a first electrode extending parallel to said longitudinal axis, said first electrode having a first end fixed and integral with said first holder, said first electrode having a second end adjacent said second holder and, spaced from said first end and second holders;

(d) a second electrode extending parallel to said longitudinal axis, said second electrode having a first end fixed to said second holder and a second end adjacent said first holder and spaced from said first and second holders;

(e) a first rigid support of electrically insulated material having a first end fixed to said first holder, said first rigid support having a second end fixed to the second end of said second electrode; and

(f) a second rigid support of electrically insulated material having a first end fixed to said second holder, said second rigid support having a second end fixed to the second end of said first electrode.--

-- 5. (Currently Amended) A device as recited in claim 3, further comprising:

(a) a third electrode extending parallel to said longitudinal axis and spaced from each of said first and second electrodes, said third electrode having a first end fixed and integral with said first holder, said third electrode having a second end adjacent said second holder and spaced from said first and second holders;

(b) a fourth electrode extending parallel to said longitudinal axis and spaced from each of said first, second, and third electrodes, said fourth electrode having a first end fixed and integral with said second holder, said third electrode having a second end adjacent said first holder and spaced from said first and second holders;

(c) a third rigid support of electrically insulated material having a first end fixed to said first holder, said third rigid support having a second end fixed to the second end of said fourth electrode; and

(d) a fourth rigid support of electrically insulated material having a first end fixed and integral with said second holder, said third rigid support having a second end fixed to the second end of said third electrode. --

Art Unit: 2881

-- 10. (Currently Amended) A method of producing a device for manipulating ions comprising the steps of:

(a) forming a polarity member of electrically conductive material

comprising:

(1) a holder having an aperture with a central longitudinal axis; and

(2) a first electrode fixed and integral with said holder and

extending parallel to said longitudinal axis;

(b) fixing a first end of a rigid support of electrically insulated material to said holder; and

(c) fixing a second electrode to said holder a second end of said rigid, support so that said second electrode is spaced from said holder and mid first electrode and extends parallel to said longitudinal axis. --

-- 12. (Original) The method as recited in claim 10, wherein said polarity member is machined from a block of electrically conducted material. --

-- 13. (Original) The method as recited in claim 10, wherein said rigid support is a first rigid support, said polarity member is a first polarity member, said holder is a first holder having a first aperture and said second electrode is part of a second polarity member of electrically conductive material comprising a second holder fixed and integral with said second electrode and having a second aperture axially aligned with said first aperture, said method further comprising the steps of:

(a) fixing a second rigid support of electrically insulated material to said second holder; and

(b) fixing said first electrode to said second rigid support so that said first electrode is spaced from said second holder. --

--15. (Original) The method as recited in claim 13, wherein said first polarity member and said second polarity member is formed by machining from a single block of electrically conducted material. --

-- 16. (Original) The method as recited in claim 13, wherein said first polarity member has a third electrode fixed and integral with said first holder and said second polarity member has a fourth electrode fixed to said second holder, each of said third and fourth electrodes extending parallel to said longitudinal axis and spaced from said first and second electrodes, said method comprising the steps of:

(a) fixing a third rigid support of electrically insulated material to said first holder;

(b) fixing said third electrode to said third rigid support so that said third electrode is spaced from said second holder;

(c) fixing a fourth rigid support of electrically insulated material to said fourth electrode; and

(d) fixing said fourth electrode to said fourth rigid support so that said fourth electrode is spaced from said first holder. --

--18. (Original) The method as recited in claim 16, wherein said first polarity member and said second polarity member are formed by machining from a single block of electrically conducted material. --

Claims 2,4,6,11, and 17 are cancelled.

Examiner's statement of reasons for allowance

The following is an examiner's statement of reasons for allowance:

1. Amended Claims 1,3,5,10,13, and 16 are allowed because Prior Art fails to show an apparatus and method of fabricating electrodes for controlling ions, wherein the electrodes are integral with the associated supports and holders. That is, the electrodes and holders are machined out of the same piece of conductive material.

Claims 7-9,12,14,15,18, and 19 are allowed because they are dependent upon allowed amended Claims 1,3,5,10,13, and 16.

The use of electrodes that are integral parts of the associated holders and supports, is patentable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2881

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communications should be directed to Phillip Johnston whose telephone number is (703) 305-7022. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor John Lee can be reached at (703) 308-4116. The fax phone numbers are (703) 872-9318 for regular response activity, and (703) 872-9319 for after-final responses. In addition the customer service fax number is (703) 872- 9317.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

PJ
December 8, 2003


JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800